

## CRUCIAL PARAMETERS FOR PLATINUM(IV) ANTICANCER DRUG DEVELOPMENT

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Platinum-based anticancer drugs are still of very high importance in the daily clinical routine and their impressive synergistic activity with some checkpoint inhibitor immuno-therapeutics will guarantee their significance also in the future. However, due to the severe side effects of platinum(II) drugs, the current research strongly focuses on platinum(IV) complexes as the next generation of platinum-based anticancer agents. Notably, several platinum(IV) complexes (Tetraplatin, Iproplatin, and Satraplatin) have already been investigated in clinical studies, however without any approval.

Platinum(IV) complexes are prodrugs, which are considered kinetically inert and have to be activated by reduction to the active platinum(II) drugs.

In this presentation on the one hand our recent data which strongly questions the high inertness of some platinum(IV) complexes under physiological conditions will be discussed. On the other hand, the crucial parameters to avoid premature reduction and/or insufficient tumor accumulation on the example of albumin-binding platinum(IV) complexes will be presented.

